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## Washington University Record, May 5, 2006

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# Record

May 5, 2006

Volume 30 No. 32



Washington University in St. Louis

## 5 to receive honorary degrees at Commencement

**W**ashington University will award honorary degrees to five prominent people, including a 2004 Nobel Prize winner in chemistry and a pioneering scholar of African and African-American literature, during the University's 145th Commencement ceremony May 19.

During the ceremony, which begins at 8:30 a.m. in Brookings Quadrangle, the University will also bestow academic degrees on more than 2,300 students.

The honorary degree recipients and their degrees are:

- Aaron J. Ciechanover, M.D., D.Sc., a 2004 Nobel Prize winner in chemistry and distinguished research professor at Technion-Israel Institute of Technology in

Haifa, doctor of science;

- Anna Crosslin, president and chief executive officer of St. Louis' International Institute, doctor of humanities;

- Steve Fossett, record-setting adventurer and the first person to fly nonstop around the world alone in a balloon, doctor of science;

- Henry Louis Gates Jr., Ph.D., the W.E.B. Du Bois Professor of the Humanities and chair of the Department of African and African American Studies at Harvard University, doctor of humane letters; and

- John F. McDonnell, vice chairman of Washington University's Board of Trustees and retired chairman of the board of McDonnell Douglas Corp., doctor of science.

**Ciechanover** has devoted a highly productive scientific career to understanding the mechanisms of protein breakdown within living cells — a vital aspect of cellular metabolism.

His early scientific work on cellular proteolysis (protein breakdown) was conducted at The Technion as a graduate student (D.Sc.) of Avram Hershko, M.D., Ph.D. They made the initial discovery of the ubiquitin-dependent proteolytic system, its enzymatic components and mechanisms of action.

The basic functions of ubiquitin and the components of the ubiquitination pathway were elucidated in the late 1970s and early 1980s in groundbreaking work per-

formed by Ciechanover, Hershko and Irwin A. Rose, Ph.D., for which the Nobel Prize in chemistry was awarded in 2004.

The ubiquitin system rigorously maintains the quality of proteins in cells by eliminating faulty and unneeded proteins. Equally important, it controls numerous basic cellular processes by removing key regulatory proteins.

Discovery of the ubiquitin pathway has led to the understanding of how the cell controls the cell cycle, DNA repair, gene transcription and some immune defense functions. Defects in the pathway have been implicated in the pathogenesis of many diseases, certain malignancies and neurode-

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## Weidenbaum receives Eliot Society's Search Award

By BARBARA REA

**M**urray L. Weidenbaum, Ph.D., one of the country's most acclaimed economists and a distinguished WUSTL professor for more than 40 years, received the Search Award, the William Greenleaf Eliot Society's highest honor, at the group's 39th annual dinner April 26 at The Ritz-Carlton, St. Louis.

The event included a keynote address by celebrated Irish singer Ronan Tynan.

The Search Award was presented to Weidenbaum by Eliot Society President Robert L. Virgil, Ph.D., former dean of the Olin School of Business and former executive vice chancellor for University relations.

"It is with great personal pleasure and deep respect that I present this award to Murray Weidenbaum, who personifies with extraordinary distinction Washington University's mission of teaching, research and service to society," Virgil said.

Recipients of this award receive a silver replica of *The Search*, a sculpture — designed by Heikki Seppa, emeritus profes-

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Eliot Society President Robert L. Virgil, Ph.D. (left), presents Murray L. Weidenbaum, Ph.D., with the Search Award at the society's 39th annual dinner April 26 at The Ritz-Carlton, St. Louis.

## Givens to serve as assistant VC and liaison to Gephardt Institute

By ANDY CLENDENNEN

**A**ssistant to the Chancellor Steve Givens has been promoted to assistant vice chancellor and special assistant to Chancellor Mark S. Wrighton, effective July 1.

He will continue his duties in the chancellor's office, which include managing office operations and staff, serving as liaison to internal and external groups, dealing with a wide range of concerns and issues, and managing special events and projects, which in the past have included events such as the presidential debates and the University's Sesquicentennial celebration.

As assistant vice chancellor, Givens will have expanded responsibilities, including serving as the chancellor's liaison to the Richard A. Gephardt Institute for Public Service and assisting in the development of the University's next strategic plan. He will also assume leadership of an initiative to oversee and coordinate the campus visits of distinguished guests and groups.

"Steve Givens has served the University with great dedication and effectiveness during my tenure as chancellor," Wrighton said. "He is a trusted and vital contributor to all aspects of our administrative efforts supporting our mission, and I am appreciative of his commitment to take on important new responsibilities to serve the University."

A native St. Louisan, Givens earned a bachelor's degree magna cum laude in English literature and a master's degree in education, both from the University of Missouri-St. Louis.

Prior to joining Washington University, he owned and managed a public relations firm and held various positions in the University Relations division at UMSL, including as a speechwriter

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Givens

## University College marks 75 years of education

By ANDY CLENDENNEN

**N**ight. A time normally associated with ballgames, social gatherings and sometimes even sleep.

But University College in Arts & Sciences has been offering people a different evening routine for 75 years.

While students first took evening classes at the University in 1854, it wasn't until 1931 that the night school became "University College." The name is derived from the urban adult-education centers founded in the 19th century by Oxford and Cambridge universities in England.

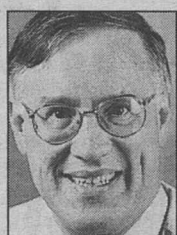
Since that first evening program, offering "mental and written Arithmetic, Algebra, Reading, Grammar, Declamations, and if desirable, writing and spelling," the college has become one of the most popular — and influential — adult higher-education programs around.

"For 75 years, University College has represented the best in adult part-time and continuing education in the St. Louis area," said University College Dean Robert E. Wiltenburg, Ph.D., "for excellence in teaching and learning, innovation and experiment, and accessibility."

The first Washington University classes were evening classes, and the first students were part-time students. Classes at the newly chartered Washington University began October 22, 1854, in what was named the O'Fallon Evening School.

Ninety students enrolled that first evening. By February 1855, the program had 270 students, all males, ranging in age from 8 to 46. Most were semiskilled workers or laborers, and 60 percent were

See **College**, Page 5



Wiltenburg

## Scientists solve mystery of mutant mouse's kidney woes

By MICHAEL C. PURDY

**R**esearchers seeking insights into kidney failure in human infants have located the source of a 30-year-old mystery mutation that causes similar problems in a mouse line.

Scientists have known of the mouse line's naturally occurring mutation since the early 1970s. School of Medicine researchers are the first to identify the mutated gene, allowing them to determine the mutation's effects and the origins of the disease.

"The gene codes for a protein that moves water across membranes, and we showed that the mutated form of the protein doesn't get properly distributed in the urinary system," said senior author Feng Chen, Ph.D., assistant professor of medicine. "If something similar happens in human disorders, one way to treat such diseases would be to

redirect the protein to its appropriate location."

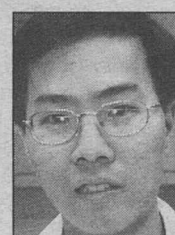
Results from Chen and his colleagues are available online in the *Proceedings of the National Academy of Sciences*.

Ultrasonic scans reveal fetal hydronephrosis, or enlargement of the kidney, in approximately one in every 100 human fetuses.

The condition results from impairment of passage of urine from the kidney to the bladder. About 20 percent of those cases lead to clinical complications that, if left untreated, can include kidney failure and death.

Scientists suspect that a variety of environmental and genetic factors contribute to fetal hydronephrosis. However, they frequently cannot tie it to any causative factors, making it difficult to deter-

See **Kidney**, Page 6



Chen



# HHMI re-confirms support of Elgin's genomics course

By TONY FITZPATRICK

**S**arah C.R. Elgin, Ph.D., who was named a "Howard Hughes Medical Institute (HHMI) Professor" in 2002, is one of eight scientists to have their original grant funding renewed in 2006.

Elgin is professor of biology and of education, both in Arts & Sciences, and of biochemistry and molecular biophysics and of genetics in the School of Medicine.

In 2002, she was one of 20 "million-dollar professors" to get funding when HHMI announced the program. Recently, HHMI announced the awarding of 20 new such professorships in 2006, in addition to renewal funding to help eight of the 2002 group find ways to sustain the parts of their programs that worked best and to dis-

seminate them to the broader community of science educators.

Elgin was renewed for \$700,000 over four years beginning in 2006.

The renewal is focused at the college/university level and is centered on an effort to make the course Biology 4342, "Research Explorations in Genomics," accessible to students and faculty at other schools.



Elgin

Elgin will direct a workshop in June on the acclaimed course, which provides junior and senior undergraduates the opportunity to work as a research team on a large-scale gene-sequencing project, beginning with sample preparation at the University's Genome Sequencing Center (GSC) through sequence finishing and analysis.

The class is taught collaboratively with Elaine R. Mardis, Ph.D., co-director of the GSC and associate professor of genetics and of molecular microbiology in the School of Medicine, and Jeremy D. Buhler, Ph.D., assistant professor of computer science and engineering in the School of Engineering & Applied Science and of genetics.

"The scientists whom we have selected are true pioneers — not only in their research, but also in their creative approaches and dedication to teaching," said HHMI President Thomas R. Cech. "We are hopeful that their educational experiments will energize undergraduate science education throughout the nation."

Cech is a biochemist who continued teaching undergraduates at the University of Colorado even after he won a Nobel Prize.

"The HHMI professors are as excited about teaching as they are about research, and it definitely

rubbs off on their students," said Peter Bruns, HHMI vice president for grants and special programs. "Undergraduates need a window into the excitement and fulfillment that scientists get from science. They need to discover that science is a way of learning and knowing, involving critical thinking, problem solving and asking answerable questions."

"In this program, we are supporting faculty to use research grade innovation to advance science education."

Elgin's research focus is on the role of chromatin structure in fruit fly (*Drosophila*) gene regulation.

She graduated from Pomona College with a bachelor's degree in chemistry and earned a doctorate from California Institute of Technology, working in the laboratory of James Bonner, Ph.D., exploring the role of nonhistone chromosomal proteins.

She did postdoctoral research with Leroy Hood, M.D., Ph.D., also at Caltech. With Hood, she developed tools to characterize chromatin in *Drosophila*.

After a move to a faculty position at Harvard University, work with her students led to a method to determine the distribution of specific proteins in the polytene chromosomes by using immunofluorescence, and also led to methods for analyzing the nucleosome array, including identification of accessible regulatory sites.

At WUSTL, Elgin's research has focused on heterochromatin formation and gene silencing, critical to the function of genomes in multicellular organisms. She served as director for the University's HHMI Undergraduate Biological Science Education Program from 1992-2004.

In addition, she began a Science Education Partnership with her children's school district in the late 1980s. This has led to the development of materials for high-school teachers to use to integrate teaching of DNA science and information on the Human Genome Project into their genetics unit and to the development of hands-on science courses for K-8 teachers, taught jointly by scientists and expert teachers.

These efforts are now led by Victoria May, director of science outreach.

Elgin serves on the editorial boards of *Molecular & Cellular Biology*, *Molecular Cell and Cell Biology Education*. She also is a member of the University City Science Advisory Council and serves on the advisory boards of the ENCODE project of the National Human Genome Research Institute and the European Epigenome Network of Excellence.



In July 1958, five professors from the WUSTL School of Business arrived in Seoul to teach the first management-development program in Korea. The professors were part of an eight-year project that involved Korean faculty attending courses at the business school and sending business school faculty to Korea to develop better business-education programs at Yonsei and Korea universities.

## As part of 'Korean Project,' WUSTL bolstered post-war business training

By SHULA NEUMAN

**T**he Olin School of Business has more than 20 Korean students enrolled in its graduate and undergraduate programs. Their presence holds special meaning because they are the beneficiaries of a bond that was formed nearly 50 years ago.

Korean business school students, as well as some of their compatriots at other WUSTL schools, recently attended a reception to hear firsthand accounts of the work the business school did from 1958-1965 to improve business education in Korea.

Robert L. Virgil, Ph.D., former dean of the Olin School and former executive vice chancellor for University relations, was a graduate student when the program started. During a scholarship dinner last year, he was talking with M.B.A. student Dong Ho (Donny) Seo when Virgil realized the current crop of Korean students wasn't aware of WUSTL's connection to that country.

Virgil wanted to make sure the history was known.

"Considering that many of Korea's business leaders today were affected by what came to be known as the 'Korean Project,' it would be a shame for that history to be forgotten," Virgil said. "So I decided that current students and their families should hear about it."

He initiated the organization of the event and was helped by current Dean Mahendra Gupta, Ph.D., the Geraldine J. and Robert L. Virgil Professor in Accounting and Management; assistant to the dean Paige Isom; and Seo.

During the reception, Virgil explained that in 1953, after the

Korean War, the U.S. government decided it would provide technical and educational aid to Korea. A government agency called the International Cooperation Administration contracted with WUSTL to cooperate with two universities in Seoul to develop programs in business administration.

There were four objectives, Virgil said:

- Assist Yonsei University and Korea University in developing curricula in business administration;
- Improve teaching methods in the two schools — discouraging too much lecture and encouraging discussion;
- Strengthen the library and audio-visual facilities in the two schools; and
- Introduce a summer management-development program for Korean executives.

"We entered into a three-year contract with Yonsei University and Korea University," Virgil said. "The first faculty went to Korea in April 1958."

"In the summer of 1958, faculty from Washington University introduced the first management-development program in Korea. In 1960, the contract was renewed, which extended the program into the mid-'60s."

Four people who were extensively involved in the Korean Project spoke at the reception.

• John Walsh, emeritus professor of management, recounted his years there helping factory owners become more efficient.

• Merle Welshans, emeritus professor of finance and former vice president of finance for what is now Ameren, helped Korean academics work with businessmen to develop case studies for students that would be relevant to Korea's

economy.

• Powell Niland, emeritus professor of management, also created many case studies in both Korean and English, and he helped develop the skills Korean academics needed in business research.

• Also speaking was Jean Emory, wife of the late William Emory, whose contributions to the Olin School included being the first director of the E.M.B.A. program. They and their daughter, Patty, spent 18 months in Korea while William Emory assisted with the program.

Emory told about daily life in Seoul, including tales of sending her daughter to school and the trials of finding the right ingredients for cooking.

Over the course of the contract, nine WUSTL faculty members were in Korea for approximately 18 months at a time. Another 10 went back and forth in the summers to teach executive-management programs.

Twenty-four Korean faculty members came to WUSTL to observe classes, then returned to Korea and applied their newfound knowledge at Yonsei and Korea universities. Four of those people ended up earning M.B.A.s and four others earned doctorates.

Two of those with doctorates eventually became presidents of their respective universities: Ja Song served as president of Yonsei University, and Joon Bum Lee became president of Korea University.

In reflecting on the educational exchange, Welshans said, "It's not an exaggeration to say that the Korean Project made a major contribution to the tremendous progress the Korean economy."

## Entrepreneurship proposals sought from all faculty

**A**ll University faculty members are being invited to submit proposals for academic research projects addressing aspects of entrepreneurship in their areas of discipline or cutting across disciplines.

Funding will be made available over two years for single or multi-year projects through a grant program to be administered and coordinated by the Center for Research on Innovation and Entrepreneurship (CRIE), which is located in the School of Law but serves all areas of the University.

Each research project may re-

ceive up to \$40,000 for each year of work for up to two years. The funding is provided by the Ewing Marion Kauffman Foundation and Robert and Julie Skandalaris.

Faculty or interdisciplinary teams representing diverse disciplines such as art, economics, political science, engineering, social work, law, business and the sciences may submit proposals. The CRIE is particularly interested in research relating to the following areas:

- Innovation and/or productivity in organizations, including for-profit, not-for-profit, government

and education types;

- Technology transfer, including all the relationships between scientific discovery, law and business;

- How entrepreneurs learn;
- Women and minorities as entrepreneurs; and

- Economic development policy and how entrepreneurial activity affects growth, wealth and mankind.

The Entrepreneurial Research Sub-Committee, which will approve the awards, defines entrepreneurship as the process of seeing opportunities, acting energeti-

cally and using limited resources to create new value for others. The process results in innovative discoveries, products, services and sustainable activities that satisfy individuals while benefiting mankind.

### Application details

Applications must be submitted by June 15, with awards expected by July 1. Interested faculty should prepare a submission following the Faculty Research Funding Application Outline and the related Research Funding Supplemental Worksheet, which

can be obtained from Karma Jenkins, CRIE coordinator (kjenkins@wulaw.wustl.edu; Campus Box 1120; 935-9490).

Proposal requests may be made for up to two years with the understanding that funding is approved only for the first year. Funding for the second year will be contingent upon research results in the first. Funding will be granted on a fiscal-year basis.

The strength of the proposals will be evaluated on these criteria:

- Synergy with faculty-member interests and relationship to previous work;
- Significance of research and expected value of findings, including journals targeted for

See Proposals, Page 7



## School of Medicine Update

# Osteoporosis drug effectively reduces breast cancer risk

BY GWEN ERICSON

**R**aloxifene, a drug frequently prescribed to prevent and treat osteoporosis, has been shown by a large, national clinical trial to work as well as the breast cancer drug tamoxifen to reduce the risk of invasive breast cancer for postmenopausal women who have a higher-than-normal risk for the disease.

This could be good news for women who may not want to take tamoxifen because it can raise the odds of developing uterine cancer, blood clots, strokes and cataracts.

Researchers at the Siteman Cancer Center participated in the two-drug study, called the STAR trial (Study of Tamoxifen and Raloxifene). The STAR trial, one of the largest breast cancer prevention studies ever conducted, enrolled nearly 20,000 women and was coordinated by the National Surgical Adjuvant Breast and Bowel Project and sponsored by the National Cancer Institute (NCI). Women who participated in the STAR trial were postmenopausal, at least 35 years old and had an increased risk of breast cancer.



Rastelli

"Earlier studies found that postmenopausal women who took raloxifene for osteoporosis lowered their risk of breast cancer," said Antonella Rastelli, M.D., principal investigator for the School of Medicine STAR trial center and instructor in medicine. "Because taking tamoxifen carries certain serious risks, it was important to determine if raloxifene, which has fewer risks, could be an effective substitute to reduce the risk of breast cancer in high-risk patients."

Tamoxifen has been used for more than 20 years to treat patients with advanced breast cancer. A study released in 1998 showed that it also had a preventative capacity. High-risk women without cancer who took tamoxifen reduced their chances of developing both invasive and noninvasive breast cancers by nearly 50 percent.

In contrast to tamoxifen, raloxifene does not appear to raise the risk of uterine cancer, strokes or cataracts, although some studies suggest it does

**"Although no drugs are without side effects, tamoxifen and raloxifene are vital options for women who are at increased risk of breast cancer and want to take action. For many women, raloxifene's benefits will outweigh its risks in a way that tamoxifen's benefits do not."**

LESLIE FORD

slightly increase a patient's risk of stroke.

The STAR trial demonstrated that raloxifene, like tamoxifen, reduced the risk of invasive breast cancer by 50 percent, and women who took raloxifene had 36 percent fewer uterine cancers and 29 percent fewer blood clots than women assigned to take tamoxifen.

In the STAR trial, women taking either drug had an equivalent number of strokes. Tamoxifen demonstrated superior ability to reduce the incidence of noninvasive breast cancers.

"Although no drugs are without side effects, tamoxifen and raloxifene are vital options for women who are at increased risk of breast cancer and want to take action," said Leslie Ford, M.D., associate director for clinical research in NCI's Division of Cancer Prevention. "For many women, raloxifene's benefits will outweigh its risks in a way that tamoxifen's benefits do not."

Tamoxifen and raloxifene are synthetic estrogen mimics that have different effects on estrogen receptors in different parts of the body, producing estrogenic effects in some sites and acting like anti-estrogens in other places. While the two drugs act slightly differently in various tissues, both tamoxifen and raloxifene appear to function like estrogen in bone — maintaining bone strength and increasing bone density — but they compete with estrogen in breast tissue to potentially lessen the likelihood of estrogen-induced breast tumors.



**Healing arts** Vicki L. Friedman (left), director of the School of Medicine's Medical Photography, Illustration and Computer Graphics (MedPIC) department, works with Beverley Oskowitz in an art class designed for patients at Siteman Cancer Center. Patients were creating a still life using fruit. MedPIC facilitates "Arts as Healing," an art therapy program for Siteman patients and their families.

## First scholars named to clinical research development program

BY BETH MILLER

**T**he National Institutes of Health's K12 Multidisciplinary Clinical Research Career Development Program in the School of Medicine, in collaboration with its institutional partners, has named its first seven scholars, who will begin the program July 1.

The scholars are funded by a five-year, \$11.5 million NIH grant received late last year by Victoria Fraser, M.D., professor of medicine and clinical chief of the Division of Infectious Diseases in the Department of Medicine.

The program is designed to promote multidisciplinary collaboration in clinical research and will provide training to fellows, post-doctoral scholars and junior faculty from diverse fields.

Based at the School of Medicine, the program will provide funding for up to 20 junior faculty members' salary, research support, travel and tuition for course work leading to a master's degree in clinical investigation or in public health.

"The scholars we have chosen this year are extraordinary researchers who we believe will make tremendous contributions to clinical and translational science and to public health as a result of this program," Fraser said.

Scholars are from the partner institutions, which include Saint Louis University School of Public Health, University of Missouri-St. Louis College of Nursing, Southern Illinois University Edwardsville School of Nursing and St. Louis College of Pharmacy.

The first scholars to take part in the program are:

- Robert H. Baloh, M.D., Ph.D., instructor, Department of Neurology, WUSTL;

**"The program's focus on training in multidisciplinary clinical research will provide for an increase in patient-related research and thus, improvement in patient outcomes."**

VICTORIA FRASER

- Jen-Jen Chang, Ph.D., assistant professor, Saint Louis University School of Public Health, Department of Community Health in Epidemiology;

- Lisa de las Fuentes, M.D., assistant professor and co-director, cardiovascular imaging, WUSTL;
- Jay R. McDonald, M.D., assistant professor, Department of Medicine, Division of Infectious Diseases, WUSTL;

- Robert T. Naismith, M.D., assistant professor, Department of Neurology, WUSTL;

- Susan L. Stark, Ph.D., assistant professor, Program in Occupational Health, WUSTL; and

- Monique M. Williams, M.D., instructor, Department of Medicine, Division of Geriatrics and Nutritional Science, WUSTL.

New scholars will be added each year, Fraser said.

"The K12 program is unique in that it facilitates collaborative research across five institutions in the St. Louis area," she said. "The program's focus on training in multidisciplinary clinical research will provide for an increase in patient-related research and thus, improvement in patient outcomes."

## Valente leads development of national adult hearing-aid fitting guidelines

BY BETH MILLER

**A**udiologists nationwide will soon have new guidelines to follow when fitting hearing aids to adults, thanks to the work of Michael Valente, Ph.D., professor of clinical otolaryngology in the School of Medicine.

Valente, also director of the adult audiology program, recently chaired a task force for the American Academy of Audiology that developed a new national guideline on how hearing aids should be fitted for adults. It is the first national guideline to use evidence-based principles to support the recommendations, he said.

"The method, procedures and protocol the task force developed are based on the way hearing aids have been fit at the School of Medicine for the past decade," Valente said. "It's the standard that the academy wanted the rest of the country to follow."

The Division of Adult Audiology in the School of Medicine has almost 13,000 patient visits per year and dispenses nearly 70 hearing aids per month. About 95 percent of those are digital. Valente's Hearing Aid Research Laboratory has been actively involved in ongoing studies with various hearing-industry manufacturers for about 15 years.

Valente defined "fit" as making sure a hearing aid is the right style for the patient's hearing loss and whether it provides the best possible amplification.

"We look at whether what is

**"You can have the world's best hearing aid, but if it is not fitted properly, it's garbage."**

MICHAEL VALENTE

being fit to a person's ear is the most appropriate solution for their hearing loss," he said. "That's part of what the guideline is all about."

Valente said there are other tools to help people deal with hearing loss, such as amplification devices for telephones and televisions and wristwatches that vibrate instead of making an alarm sound.

Verification is perhaps the most unique and important aspect of the new guideline, Valente said.

"In 70 percent of cases, audiologists simply download the manufacturer's 'First-Fit' algorithms that are part of their software to a patient's hearing aid without any external verification to determine if the fit is appropriate for the patient's hearing loss," Valente said. "Research has clearly shown that there will be a high probability for error using this approach because it's not fine-tuned."

"Instead, we personally adjust and verify all fits before the patient leaves the office and confirm that the hearing aid is doing what's appropriate for the hearing loss and satisfactory for the patient."

"You can have the world's best hearing aid, but if it is not fitted

properly, it's garbage," he added.

Valente said in the past five years, hearing aids have become much more advanced and are able to reduce the annoying background noise that causes difficulty for many hearing-aid wearers. The new generation of hearing aids also automatically softens sounds that come from behind and from the side of the wearer and is much better in controlling feedback, or a high-pitched squeal.

The Division of Adult Audiology recently rolled out a 15 percent discount on hearing aids to University faculty, staff and their family members. Each hearing aid includes a 30-day trial period, free follow-up visits, reprogramming and cleaning, and an orientation on the use, care and expectations from hearing aids, which can range in price from \$750 to more than \$3,000. Most hearing aids are not covered by insurance or Medicare. Division offices are at the Center for Advanced Medicine, Central Institute for the Deaf and in Creve Coeur, Mo.

For more information, call the Department of Otolaryngology at 362-7489 or 362-7509.



# University Events

## WUSTL, Cinema St. Louis to present children's film symposium

BY LIAM OTTEN

The Center for the Humanities and the Program in Film & Media Studies, both in Arts & Sciences, will host the Second Annual Children's Film Symposium May 5-6.

Presented in conjunction with Cinema St. Louis, the event will feature a keynote address by Nicholas Sammond, author of *Babes in Tomorrowland: Walt Disney and the Making of the American Child, 1930-1960* (2005), as well as screenings of the films *Duma* (2005) and *Saving Shiloh* (2006), the latter of which was

shot in St. Louis last year.

Sammond, assistant professor of cinema studies at the University of Toronto, will speak on "Parental Guidance Suggested: A Brief History of Children in/at the Movies" at 3 p.m. today in McDonnell Hall, Room 162. A reception will immediately follow.

At 7 p.m. today, film critic Stephanie Zacharek will introduce *Duma* at Ronnie's 20 Cine, at the intersection of South Lindbergh Boulevard and Baptist Church Road in south St. Louis County.

Directed by Carroll Ballard, the film chronicles the friendship that develops between a young

boy named Xan and a baby cheetah named Duma as they make their way across Southern Africa on a mission to return Duma to the wild. Zacharek will also lead a post-screening discussion.

The events will continue at 1 p.m. May 6 with a screening of *Saving Shiloh* in Brown Hall, Room 100.

The film is based on the third volume in Phyllis Reynolds Naylor's Newberry Award-winning *Shiloh* trilogy, which follows sixth-grader Marty and his efforts to rescue Shiloh, a mistreated beagle, from his abusive owner, Judd Travers. In this installment,

Marty and his family must work to help Judd, who recently survived a near-fatal truck accident, change his ways and redeem himself in the eyes of the community.

Immediately after the screening, director Sandy Tung, who also directed *Shiloh 2: Shiloh Season* (1999), and producer Carl Borack will participate in a panel discussion — led by Jeff Smith, director of Film & Media Studies — about the making of the film.

"Shooting *Saving Shiloh* in Missouri this past summer was a privilege and a pleasure," Tung said at the film's St. Louis premiere in February, a benefit for

the St. Louis International Film Festival.

"We couldn't have asked for a more hardworking and cooperative crew. We were also able to find numerous talented actors to add to our cast."

"Overall, I couldn't have asked for a better experience, and the results of that are evident in our film."

All events are free and open to the public, though RSVPs are requested, and seating for *Duma* is limited.

Both films are suitable for children above age 6. For more information, call 935-5576.

## Fashion Design Show • Caring for Children • Così Fan Tutte

"University Events" lists a portion of the activities taking place May 5-18 at Washington University. Visit the Web for expanded calendars for the Hilltop Campus ([calendar.wustl.edu](http://calendar.wustl.edu)) and the School of Medicine ([medschool.wustl.edu/calendars.html](http://medschool.wustl.edu/calendars.html)).

### Exhibits

**Road Show.** Through May 5. Olin Library, Lvl. 1, Whispers Café Cube. 935-6626.

**Visual Poetry.** Through May 30. Olin Library, Grand Staircase Lobby and Ginkgo Reading Rm. 935-5495.

### Film

#### Friday, May 5

6 & 8:30 p.m. **Travel Lecture Series.** *Corisca and the Riveras*. Stan Walsh, dir. Graham Chapel. 935-5212.

7 p.m. **Center for the Humanities Presentation.** *Duma*. Co-sponsored by the Program in Film and Media Studies and Cinema St. Louis. Introduction by Stephanie Zacharek. Ronnie's 20 Cine, 5320 S. Lindbergh Blvd. 935-5576.

#### Saturday, May 6

1 p.m. **Center for the Humanities Presentation.** *Saving Shiloh*. Sandy Tung, dir. Co-sponsored by the Program in Film and Media Studies and Cinema St. Louis. Brown Hall, Rm. 100. 935-5576.

#### Wednesday, May 17

5-8 p.m. **Sam Fox School B.F.A. Exhibition.** Bixby Hall & Lewis Center. 935-9347.

### Lectures

#### Friday, May 5

7 a.m.-7:30 p.m. **Internal Medicine CME Course.** "The Washington Manual Com-

prehensive Internal Medicine and Board Review Course." (Continues May 6-7.) Cost: \$995 for physicians, \$795 for residents, fellows and allied health professionals. Eric P. Newman Education Center. For schedule and to register: 362-6891.

**Noon. Cell Biology & Physiology Seminar.** "TSE/prion Diseases: The Infectious Unit and Its Invasion of Neuronal Cells." Byron Caughey, lab. of persistent viral diseases, NIH/NIAD Rocky Mountain Labs. McDonnell Medical Sciences Bldg., Rm. 426. 362-6945.

3 p.m. **Center for the Humanities Keynote Address.** "Parental Guidance Suggested: A Brief History of Children in/at the Movies." Nicholas Sammond, author and asst. prof. of cinema studies, U. of Toronto. Co-sponsored by the Program in Film and Media Studies and Cinema St. Louis. McDonnell Hall, Rm. 162. 935-5576.

**4 p.m. Immunology Research Seminar Series.** "Genomic Approaches to Virus Discovery." David Wang, asst. prof. of molecular microbiology. Moore Aud., 660 S. Euclid Ave. 362-2763.

#### Saturday, May 6

7:30 a.m.-3:45 p.m. **Cardiothoracic Surgery & Cardiology CME Course.** "Recent Advances in the Management of Valvular

Heart Disease: The Present State-of-the-Art in Diagnosis and Intervention." Cost: \$35. The Ritz-Carlton St. Louis, 100 Carondelet Plaza. 362-6891.

#### Monday, May 8

**Noon. Molecular Biology & Pharmacology Seminar.** "Unraveling the Role of AAA ATPases in Membrane Trafficking and Human Disease." Phyllis Hanson, assoc. prof. of cell biology & physiology. South Bldg., Rm. 3907, Philip Needleman Library. 747-3339.

4 p.m. **Immunology Research Seminar Series.** "Genomic Approaches to Virus Discovery." David Wang, asst. prof. of molecular microbiology. Moore Aud., 660 S. Euclid Ave. 362-2763.

#### Tuesday, May 9

**Noon. Molecular Microbiology & Microbial Pathogenesis Seminar Series.** "Hitting the *Plasmodium* Life Cycle Early On: Attenuated Liver Stages." Kai Matuschewski, asst. prof. of parasitology. Cori Aud., 4565 McKinley Ave. 362-4829.

#### Wednesday, May 10

4 p.m. **Biochemistry and Molecular Biophysics Seminar.** "Why tRNAs Are Different." Olke Uhlenbeck, prof. of chemistry, Northwestern U. Cori Aud., 4565 McKinley Ave. 362-4152.

7 p.m. **Whitney R. Harris Inst. for Global Legal Studies Talk.** "Genocide Emergency: Darfur, Sudan — Who Will Survive Today?" Jerry Fowler, staff dir., Committee on Conscience. (6 p.m. candlelight vigil.) Missouri History Museum, MacDermott Grand Hall. 935-7988.

#### Thursday, May 11

8:30 a.m.-3 p.m. **Program in Audiology and Communication Services.** Annual PACS Student Research Symposium. (Continues 8:30 a.m. May 12.) Farrell Learning & Teaching Center, Kathy E. Holden Aud. 747-0104.

#### Friday, May 12

9:30 a.m. **Cardiac Surgery Lecture.** Annual Thomas B. Ferguson Lecture. "The Evolution of Surgical Treatment of Hypoplastic Left Heart Syndrome." Thomas Spray, chief of cardiothoracic surgery and Alice Langdon Warner Endowed Chair in Pediatric Cardiothoracic Surgery, The Children's Hospital, Philadelphia. St. Louis Children's Hospital, Third Floor Aud. 362-6021.

**Noon. Cell Biology & Physiology Seminar.** "Computational Approaches to Understanding the Cytoskeleton." David Sept, asst. prof. of biomedical engineering. McDonnell Medical Sciences Bldg., Rm. 426. 362-3964.

3:30 p.m. **Biology Seminar.** Varner Seminar. "On the Size of Plant Cells." Keith Roberts, prof. of cell biology, John Innes Inst., Norwich, England. Rebstock Hall, Rm. 215. 935-6860.

#### Saturday, May 13

7:30 a.m.-4 p.m. **Gynecologic Oncology CME Course.** Annual Uterine Cancer Biology Symposium. "Strategies in the Management of Uterine Papillary Serous, Malignant Mullerian Tumor and Clear Cell Carcinoma." Co-sponsored by the Siteman Cancer Center. Cost: \$225. Farrell Learning & Teaching Center. To register: 362-6891.

#### Monday, May 15

11 a.m. **Midwest Regional Center of Excellence for Biodefense and Emerging Infectious Diseases Research Guest Lecture.** "Interactions Between Tick-borne Encephalitis Viruses and the Innate Immune Response Network." Marshall E. Bloom, dir., NIAID/NIH Rocky Mountain Laboratories, Hamilton, Mont. Farrell Learning & Teaching Center. 286-0432.

#### Tuesday, May 16

**Noon. First Wings Lecture in Palliative and Hospice Care.** "Caring for Children with Life-threatening Conditions: Can We Do Better?" Joanne Wolfe, asst. prof. of pediatrics, Harvard U. St. Louis Children's Hospital Aud. 286-1250.

**Noon. Molecular Microbiology & Microbial Pathogenesis Seminar Series.** "Live Attenuated Vaccines Against H5N1 Influenza Virus." Kanta Subbarao, sr. investigator, NIAID/NIH. Cori Aud., 4565 McKinley Ave. 747-2132.

#### Wednesday, May 17

4 p.m. **Biochemistry & Molecular Biophysics Seminar.** "Self-assembled Nanometer Scale Lipid Bilayers for Elucidating the Structure and Function of Membrane Proteins." Steve Sligar, prof. of biochemistry and of chemistry, U. of Ill. Cori Aud., 4565 McKinley Ave. 362-4152.

#### Thursday, May 18

4 p.m. **Ophthalmology & Visual Sciences Seminar Series.** "Mouse Genetics of Retinitis Pigmentosa 1 (RP1)." Jian Zuo, assoc. prof. of anatomy & neurobiology, U. of Tenn. Maternity Bldg., Rm. 725. 362-4179.

### Music

#### Friday, May 5

7:30 p.m. **Senior Recital.** Sheena Chew, piano. Music Classroom Bldg., Tietjens Hall. 935-4841.

8 p.m. **Washington University Opera.** *Così Fan Tutte*. Jolly Stewart, dir. (Also 8 p.m. May 6.) Umrath Hall Lounge. 935-4841.

#### Saturday, May 6

8 p.m. **Electronic Music Studio Concert.** Music Classroom Bldg., Tietjens Hall. 935-4841.

#### Sunday, May 7

7 p.m. **Concert.** Florentine Piano Trio. Ridgely Hall, Holmes Lounge. 935-4841.

7:30 p.m. **Concert.** Eliot Trio. Cost: \$15, \$10 for seniors, WUSTL faculty & staff, \$5 for students. Whitaker Hall Aud. 935-4841.

#### Monday, May 8

7 p.m. **Senior Recital.** James Wang, violin; Aaron Mertz, cello; and Sheena Chew, piano. Ridgely Hall, Holmes Lounge. 368-8970.

### Sports

#### Friday, May 5

4 p.m. **Softball vs. McKendree College.** WUSTL Field. 935-4705.

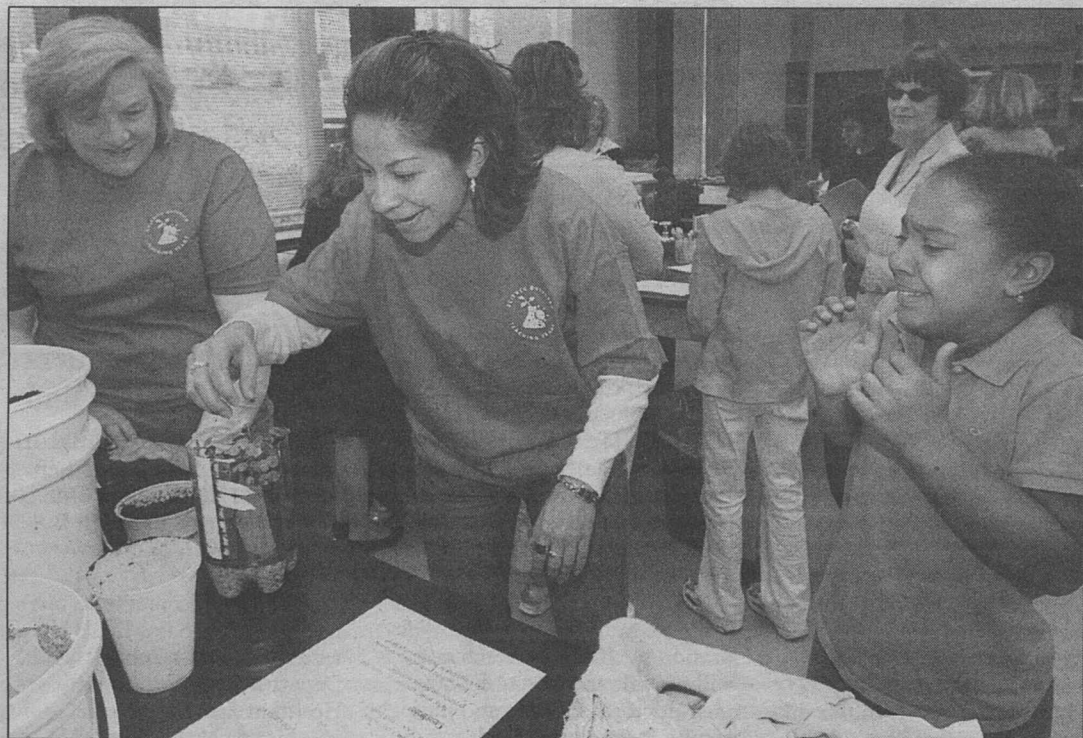
### And more...

#### Sunday, May 7

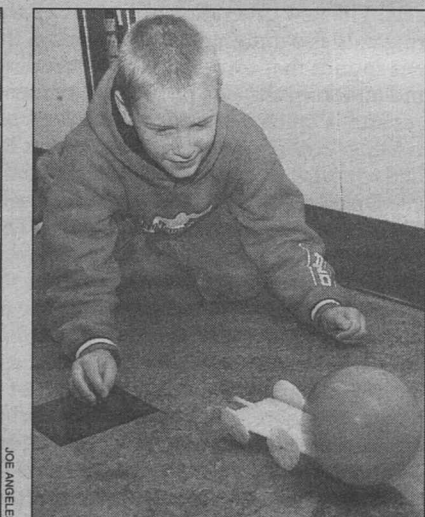
7:30 p.m. **Sam Fox School 77th Annual Fashion Design Show.** Saint Louis Galleria. 935-6543.

#### Monday, May 8

**Sam Fox Graduate School of Architecture & Urban Design Final Review.** Through May 10. 935-9347.



JOE ANGELES



DAVID KILTER

A firsthand look April 27 marked the annual Take Our Daughters and Sons to Work Day, and the University offered several programs for children ages 8-12. At top (from right), Sydney McNanemy, 9-year-old daughter of the George Warren Brown School of Social Work's Kim McNanemy, reacts as Jessica Ochoa, student registrar in biology in Arts & Sciences, puts a worm in a terrarium as biology administrative assistant Judy Musick looks on. At bottom left, WUSTL women's tennis coach Kelly Stahlhuth hands out rackets to several youngsters for the program "Tennis Fun With Mom and Dad." And at bottom right, Andrew Lange, son of Martin Lange in facilities planning and management, watches as his balloon-powered car rolls down the hallway of the Earth and Planetary Sciences Building.



# From chaos comes order? Physicists make baffling discovery

"The police are not here to create disorder, they're here to preserve disorder." — **Richard J. Daley**, Chicago mayor, explaining to the media the role of the police during the riotous 1968 Democratic National Convention

By DOUGLAS M. MAIN

**P**olice keep order. That's why, for example, they issue tickets for "disturbing the peace." Thus the only logical conclusion to Daley's famous quote above — other than dismissing it as the result of his famously tangled tongue — is sometimes disorder spawns order.

Sounds impossible, right? Wrong.

According to a computational study conducted by a group of WUSTL physicists, one may create order by introducing disorder.

While working on their model — a network of interconnected pendulums, or "oscillators" — the researchers noticed that when driven by ordered forces, the various pendulums behaved chaotically and swung out of sync like a group of intoxicated synchronized

swimmers. This was unexpected — shouldn't synchronized forces yield synchronized pendulums?

But then came the real surprise: When they introduced disorder — forces were applied at random to each oscillator — the system became ordered and synchronized.

"The thing that is counterintuitive is that when you introduce disorder into the system — when the (forces on the pendulums) act at random — the chaos that was present before disappears and there is order," said Sebastian F. Brandt, a physics graduate student in Arts & Sciences and lead author of the study, which appeared in a recent edition of *Physical Review Letters*.

## Insights into other realms

The physicists' research is not only hard to grasp for nonphysicists, but also puzzling for physicists. As supervisor Ralf Wessel, Ph.D., associate professor of physics said, "Every physicist who hears this is surprised."

Research on the role of disorder in complex systems is quite new and not well understood.

Wessel hopes that one day its theoretical understanding will be better than it is today.

Nevertheless, the researchers believe the model could provide insights outside the realm of theoretical physics.

Neurons, for example, have been modeled as interconnected, or "coupled," oscillators because of the way they interact with one another. In the model, coupled oscillators can be imagined as being tethered to their nearest neighbor, thus influencing their movement.

Neurons, on the other hand, may display repetitive electrical activity that can be influenced by the activity of neighboring neurons.

Though it's a bit of a stretch, admitted Babette K.M. Dellen, a doctoral candidate at the time of the research who has since earned a Ph.D., the study may help to solve previously unexplained observations.

Dellen first noticed the disorder-order phenomenon while studying neurology. She set the project aside, and then Brandt joined the research group and became intrigued with the concept of disorder-induced synchroniza-

tion and delved more deeply.

Dellen explained that neurons can exhibit synchronous activity in response to a stimulus. To this point, she said, no one has come up with an adequate explanation.

And Wessel said, "Here, what Dellen discovered, is that maybe the details of neurons are completely irrelevant. Maybe it is only a property of oscillators."

## Oscillators like a child on a swing

A vital similarity between the model system and neurons is that they are both "nonlinear" — meaning that there is not a linear, or straight-ahead, correlation between the applied force and displacement.

In other words, the oscillators in the model may be likened to a child on a swing. Within a small range, the child will move in constant proportion to how hard you push — if you push twice as hard, the child will go twice as far.

But nearly all complex systems in nature, like the physicists' model, are nonlinear. Once the child gets to a certain height, pushing twice as hard will not make the child go twice as far.

Neurons are composed of

many elements and are typically nonlinear.

"When you hear your favorite music twice as loud you don't double the pleasure," said Brandt, explaining how one aspect of the brain — hearing — is nonlinear.

While other research has shown that disorder can create order, these studies often involved manipulating parameters within the systems such as changing pendulum length. The researchers said their work is novel because it involves changing externally applied forces.

Thus, they believe, their findings might have potential in the real world, where it would be more difficult to change parameters within the system — neurons, for example — but relatively simple to apply an external force.

"This is, of course, basic research," Brandt said. "But what you can learn from this is that complex systems sometimes behave in a very unexpected way, completely opposite to your intuition or expectation."

"It will be interesting to see if the mechanism that we have found can actually be put to some use."

## Sports

### Tennis teams head to Division III tournament

The men's and women's tennis teams are headed to the NCAA Division III Tournament for the seventh consecutive season. The No. 8 men and No. 19 women will travel to Greencastle, Ind., for the NCAA Central Regional May 5-7. The men (18-2) will take on No. 13 Kalamazoo College (16-8) May 6. The women will play No. 16 Denison University (17-6) in today's first round.

### Baseball team stays on roll, posts 3-0 week

The No. 28 baseball team went 3-0 last week, bringing its record to 33-5. The 33 wins are a WUSTL single-season record. The Bears topped Case Western Reserve, 6-1, April 29 in Chicago. On April 24, WUSTL eked past Illinois College, 1-0, and beat Westminster College, 14-6, the next day.

### Softball moves winning streak to eight games

The No. 14 softball team posted a 5-0 record last week, opening with

a doubleheader sweep of Illinois College April 26.

Junior Laurel Sagartz picked up her 15th win of the season by pitching a one-hit shutout in the Bears 2-0 win in Game 1. Freshman Susan Gray (6-3) picked up the win on the mound for the Bears in Game 2, striking out a career-high nine and walking just one. The Bears posted a doubleheader sweep at Millikin University April 28. Washington U. posted a 4-0 win in Game 1, and then notched a 16-4 victory in the nightcap. The Bears ended the week with a 1-0 win in six innings at Maryville University April 30.

### Women's 4x400 relay shows well at Drake

The men's and women's track and field teams turned in some strong performances at the Drake Relays. In preliminary action, the women's 4x400-meter relay squad provisionally qualified for the NCAA Championships. The quartet of senior Laura Ehret, junior Natalie Badowski, sophomore Danielle Wadlington and senior Michelle McCully clocked a team season-best time of 3:55.64 to place 13th.

cations and books. He is the co-author, with photographer Tom Ebenhoh, of *Arch Celebration*, a book that commemorated the 25th anniversary of the Gateway Arch in 1990.

In the 1980s and 1990s, he was a widely published freelance journalist. More recently, his essays and commentaries have appeared in such publications as the *St. Louis Post-Dispatch*, the *Suburban Journals* and the *St. Louis Review*, and several of his commentaries have been broadcast on National Public Radio's "Only a Game."

Givens was a contributing writer, composer and musical performer for "The World's Greatest Fair," a two-hour CINE Gold Eagle and Emmy Award-winning documentary on the 1904 St. Louis World's Fair that aired nationally on PBS. He recently composed two pieces of period music for a new documentary on the Gateway Arch being produced by the same production company, Civil Pictures.

He has produced six independent CD projects.

Givens is married to Susan (Geerling) Givens; they have two children, Jonathan, 19, and Jennifer, 15.



**Honoring a legacy** (From left) Mary Jane Gray, M.D., sister of Elizabeth Gray Danforth; Chancellor Emeritus William H. Danforth; and Tedi Macias of The Woman's Club of Washington University unveil an environmentally friendly, six-sided picnic table in the Elizabeth Gray Danforth Butterfly Garden. The recent ceremony was attended by more than 50 people. Following the ceremony, the participants gathered for a reception and shared many stories and memories of "Ibby," the first lady of Washington University for more than 24 years. The Woman's Club maintains the garden, which is open to the public.

## Givens

— from Page 1

for former Chancellor Marguerite R. Barnett.

He joined Washington University in 1992 and served for two years as the editor of *Washington University Magazine*. Following a three-year stay in England, where he wrote and taught creative writing, he returned to Washington University in 1997 as assistant to the chancellor.

He has been active on many University committees and planning groups and often represents the University in the St. Louis community through involvement in such organizations as the Interdisciplinary Project for Children and Youth, the St. Louis Regional Conference on Racial Justice and Harmony, the National Conference for Community and Justice, and the Skinker-De Baliviere Community Council.

He is a board member of the National Association of Presidential Assistants in Higher Education.

He is the author of five children's books published by New Canaan Publishing as well as numerous religious-education publi-

## College

### Veterans helped raise enrollment post-WWII

— from Page 1

immigrants, mostly from Germany, Ireland and England.

By 1923, the Extension Division had 2,400 students — more than the number of full-time students. A reorganization created University College in February 1931 and granted it the power to confer baccalaureate degrees and enroll students in full-time programs of study.

Dramatic growth followed.

"At various points in its history — notably during the 1930s when few could afford to study full-time, and after World War II when many needed to combine work, family and education — University College has had more students than any other division of the University," Wiltenburg said.

In the early 1930s, University College was the busiest school on campus, with 2,130 students in 1933.

Under both Dean Frederick W. Shipley and his successor and fellow classics professor Frank Debatin, it offered innovative courses such as Chinese and Russian, and degree-granting programs. These included B.S. degrees in journalism and in education beginning in 1932; an arrangement with the School of Fine Arts, which did not offer its own degrees until 1941, to give bachelor's degrees to prospective art teachers; and a master's degree in education starting in 1936.

Military veterans helped raise enrollment to 8,000 in 1948-49. Innovative noncredit courses, popular lecture programs, film series and conferences established in the 1950s made University College the community leader in adult education, and in 1957-58, enrollment approached 10,000.

In the academic year 1972-73, University College counted more than 17,000 course enrollments.

After a reorganization that incorporated University College into Arts & Sciences in 1980, the Master of Liberal Arts Program, the only one of its kind in St. Louis, got its start under the leadership of

Robert C. Williams, then the dean of University College and professor of history in Arts & Sciences.

Students took part in interdisciplinary seminars organized into four categories: ideas and inquiry; the creative imagination; science and human values; and historical understanding.

Today, through University College in Arts & Sciences, part-time, evening and summer students may earn baccalaureate and master's degrees and certificates, or attend classes for personal enrichment, at a world-class academic institution.

Noncredit options at University College include special audit and short courses and the Lifelong Learning Institute.

And U. College shows no signs of slowing down, hoping for at least another 75 years of unqualified success.

"We are currently the largest we've been in the past 25 years, with about 1,500 adult students (one-third of them WUSTL employees) and 3,300 enrollments in about 250 courses," Wiltenburg said. "And our Lifelong Learning Institute has nearly 600 participants."



## Degrees

**Fossett has been WUSTL trustee since 1995**  
— from Page 1

generative disorders among them.

As a result, a potent anti-cancer drug has already been developed, and drugs for other malignancies and diseases are likely on the way.

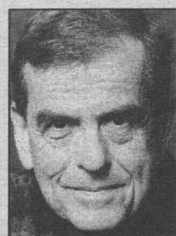
In addition to the Nobel Prize, Ciechanover received the 2000 Albert Lasker Award for Basic Medical Research with Herzhko and Alexander J. Varshavsky, Ph.D., for their work on the ubiquitin system.

**Crosslin**, a 1972 Arts & Sciences graduate with a bachelor's degree in political science and a minor in Asian studies, has helped thousands of refugees and immigrants make a smooth transition to life in the St. Louis area.

Under Crosslin's entrepreneurial leadership, the International Institute, which is in St. Louis' South Grand neighborhood, has grown in size and scope. Today it is the largest resettlement agency in the state. It annually provides educational, counseling and employment services to more than 8,000 newcomers from 55 countries.

Founded in 1919, the institute is nationally recognized for its programs designed to move refugees and immigrants quickly from overwhelming dependence to productivity and self-sufficiency.

During Crosslin's 28-year tenure, the institute has led the charge to resettle refugees, result-



Ciechanover



Crosslin

ing in the largest Bosnian community in the United States now claiming St. Louis as home.

The organization is playing a major role in revitalizing its surrounding city neighborhoods, where many immigrants are finding jobs, starting businesses and buying homes.

Recently, Crosslin launched the International Institute Business Solutions Center, a social enterprise that provides language and cultural expertise to local businesses to help them work more effectively in the global marketplace and with more ethnically diverse work forces. She is working to expand the program to more than 20 other metropolitan areas during this year.

In recognition of her leadership role among fellow International Institute directors nationwide, Crosslin was elected chair of the Standing Committee of the Professional Council of the U.S. Committee for Refugees and Immigrants, the umbrella organization for the country's International Institutes. She served from 2004-06, retiring from the position in February.

**Fossett** is one of the world's most accomplished adventurers. Whether sailing around the world, swimming the English Channel or flying high-altitude gliders, he always rises to the challenge.

The holder of current official world records in five sports, he became the first person to complete a solo round-the-world balloon flight after working toward the record for seven years. The flight, his sixth attempt at the record, launched from Northam in Western Australia, June 19, 2002, and returned to Queensland, Australia, July 4, 2002.

During his historic circumnavigation of the world, Fossett traveled 20,602 miles, reached speeds of up to 204 miles per hour and flew as high as 34,700 feet. The



Fossett

they saw that distribution of the protein was changed.

Normally aqp2 is concentrated on the sides of collection-duct cells that face the urine, where aqp2 can extract water from the waste stream for recirculation in the body. In the mutant mice, though, aqp2 was scattered around the collection duct cells.

"The protein is still there, but it's not in the right place," Chen said. "To make sure this was the cause and not just a result of the problem, we analyzed the sequence of the aqp2 gene from the mutant mice, comparing it to the gene from other normal mice, and found a single base pair had changed."

The change swaps the amino acid serine for the amino acid leucine at a key position in the protein.

Serine can undergo phosphorylation, a form of chemical modification frequently used in biological processes; leucine cannot. This change apparently disrupts the processes that otherwise produce a normal distribution pattern for the protein.

Chen compares the machinery that transfers water from the kidney to a plumbing system. With aqp2 unable to reabsorb water, he said, that results in up to 30 times more urine being dumped into the downstream pipes.

"Eventually, you overwhelm the plumbing system, and it gets backed up to an upstream location: the kidney," Chen said.

Chen plans follow-up studies of aqp2 to determine how important various parts of the protein are to its proper distribution in the kidney collecting-duct epithelium. His lab is also looking for other genetic factors that contribute to renal diseases.

University served as mission control for this flight as well as three of his other balloon flights, including his 1998 launch from the old Busch Stadium.

Fossett's spirit of adventure is also apparent in his business enterprises. He founded and managed Lakota Trading Inc., a major exchange floor market-making firm. He was a member of the New York Stock Exchange for 26 years.

Born in Jackson, Tenn., in 1944, Fossett earned a bachelor's degree in economics from Stanford University in 1966 and a master's degree in business administration from Washington University in 1968. He received the Olin School of Business' Distinguished Alumni Award in 1995.

A member of the University's Board of Trustees since 1995, he also serves on the national executive board of the Boy Scouts of America and is a member of the World Scout Committee.

A pioneering scholar of African and African-American literature, **Gates** is considered one of the nation's foremost cultural critics and a pre-eminent public intellectual.

Gates, who also is director of Harvard's W.E.B. Du Bois Institute for African and African-American Research, graduated summa cum laude from Yale University in 1973. He won a Mellon Fellowship to study at Clare College at the University of Cambridge in England, where in 1979 he became the first black American to earn a doctorate.

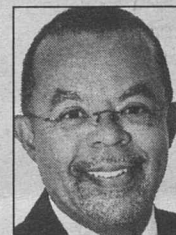
In 1980, as an assistant professor at Yale, he launched the Black Periodical Literature Project, devoted to studying African-American newspapers published in America between 1827-1940.

The following year he received a \$150,000 MacArthur Fellowship

— or "genius grant" — which culminated in his re-discovery and re-publication, in 1983, of Harriet E. Wilson's *Our Nig; or, Sketches From the Life of a Free Black* (1859), the first novel published in the United States by an African-American.

Over the next several years, Gates helped to define an African-American literary canon through a series of books, notably *The Signifying Monkey: A Theory of Afro-American Literary Criticism* (1988), winner of the American Book Award.

Gates has written widely on the contemporary African-American experience, in books such as *Colored People: A Memoir* (1994) and *The Future of the Race* (with Cornel West, 1996), as well as in *Thirteen Ways of Looking at a*



Gates

*Black Man* (1997), a collection of magazine profiles.

In 1997 Gates was voted one of *Time* magazine's "25 Most Influential Americans." Other projects include developing and hosting a series of documentaries for PBS, most recently *African American Lives* (2006).

**McDonnell** was destined for a career in aerospace. Born in Baltimore in 1938, he is the son of McDonnell Aircraft founder James S. McDonnell. John holds bachelor's (1960) and master's (1962) degrees in aeronautical engineering from Princeton University.

Also an alumnus of the Olin School, McDonnell had a distinguished career of more than 35 years with McDonnell Aircraft and McDonnell Douglas Corp.,

Economic Advisers. His dual role as teacher and government policy leader continued through the George H.W. Bush White House, when the president sent him on a special mission to Poland.

Throughout his academic life, Weidenbaum continued his keen interest in the impact of government on business, and founded the Center for the Study of American Business at WUSTL. In 2000, the center was renamed the Weidenbaum Center on the Economy, Government, and Public Policy.

In addition, Weidenbaum held many leadership positions, among them serving as chief economist for Boeing and heading up the U.S. Trade Deficit Review Commission. He is a member of the boards of Harbour Group, Macroeconomic Advisers and the Center for Strategic and International Studies.

He advises the Center for Strategic Tax Reform, the American Council for Capital Formation, the American Enterprise Institute and the Foreign Policy Research Institute. He also chairs the board of directors of the University's Center for New Institutional So-

starting in engineering and retiring in 1997 as chairman of the board.

He led the company successfully through the early 1990s when the U.S. defense budget and the aerospace markets were shrinking dramatically. In the face of a rapidly consolidating aerospace industry, he oversaw the 1997 merger of McDonnell Douglas with Boeing to create the world's largest aerospace company.

While McDonnell has left his mark on the aerospace world, he has also made significant contributions to Washington University.

Now a Life Trustee, McDonnell was first elected a University trustee in 1976. After holding various board leadership positions, he was elected chairman in 1999. In 2004, he was elected to his current position as vice chairman, and he now chairs the board's Development Committee.

McDonnell also served as chairman of the leadership phase of the Campaign for Washington University. The campaign ended June 30, 2004, with \$1.55 billion in gifts and commitments, well beyond the stated goals.

A founding member in 1997 of the University's International Advisory Council for Asia, he is also an Advisory Committee member for the newly formed McDonnell International Scholars Academy. He, along with the JSM Charitable Trust, provided the naming gift for this global education and research initiative partnering Washington University with top foreign universities and leading multinational corporations.



McDonnell

## Award

— from Page 1

sor of art — symbolizing the endless quest for truth and knowledge.

Weidenbaum is the Edward Mallinckrodt Distinguished University Professor of economics in Arts & Sciences and the honorary chair of the Weidenbaum Center on the Economy, Government, and Public Policy.

As a *Search* recipient, he joins a group of outstanding citizens who have made a significant impact on the University, the region, the country or the world.

In Weidenbaum's case, it's all four. A highly influential economist and policy adviser, he has a legacy in the academic and governmental realms that began in the early 1960s.

In all, Weidenbaum has served or advised five U.S. presidents, all while teaching, writing and conducting research. During the Truman and Eisenhower administrations, he served on the U.S. bureau of the budget staff.

After a stint in the corporate world with The Boeing Co., he turned to academia via Stanford University, then Washington University, where he began as an associate professor of economics in 1964.

Two years later, he was named a full professor and chair of the department. During that time, Weidenbaum directed the NASA Economics Research Program, the department's largest research project.

He left for Washington, D.C., in 1969 to serve as the first assistant secretary of the treasury for economic policy under President Nixon. In 1971, he was installed as the Mallinckrodt professor at WUSTL.

This straddling of two worlds would become a pattern throughout the 1980s.

During the first Reagan administration, Weidenbaum became the first chairman of the Council of

## Kidney

**Protein that mutates in mice is aquaporin 2**  
— from Page 1

mine how normal molecular and cellular processes in kidney development break down in infants affected by the condition.

Researchers at The Jackson Laboratory first noted the mouse line's mutation in the early 1970s when some of the mice developed enlarged bellies and died 3-4 weeks after birth. Scientists initially assumed that the mutation was causing a form of polycystic kidney disease, but a follow-up study more than a decade later showed that passage of urine from the kidney was blocked, and the condition was renamed congenital progressive hydronephrosis.

With assistance from the mouse genome sequence and Li Ding, Ph.D., a research instructor at the Genome Sequencing Center, Chen and his colleagues showed that the protein mutated in the mice is aquaporin 2 (aqp2), which belongs to an important family of proteins that channel water across membranes.

"We knew that the aqp2 protein is found in the principal cells of the collecting duct, the final stretch of the kidney filtration machinery," Chen said. "Water and some other useful components are reabsorbed from the urine here. The concentrated urine is then passed on to the bladder and other downstream parts of the urinary system."

When scientists used an antibody to identify where aqp2 is in the kidneys of the mutant mice,

## Record

Founded in 1905  
Washington University community news

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## Notables

# Business school presents alumni awards, Dean's Medal

BY SHULA NEUMAN

The Olin School of Business honored the achievements of four alumni May 3 at the school's annual dinner at The Ritz-Carlton, St. Louis.

Dean Mahendra Gupta, Ph.D., the Geraldine J. and Robert L. Virgil Professor in Accounting and Management, also presented the Dean's Medal to former Dean Stuart I. Greenbaum, Ph.D., and his wife, Elaine, a 1960 alumna.

Distinguished Alumni Awards are bestowed annually to recognize those who have achieved distinction in their fields and for embodying the qualities of leadership, integrity and commitment that the Olin School seeks to instill in its students.

This year's recipients of the alumni awards were E. William Gillula, Lynn E. Gorguze, Lewis A. Levey and Lin-Kuei Jackson Ling.

**Stuart Greenbaum** served as dean of the business school from 1995-2005. The couple is being honored with the Dean's Medal for exceptional dedication and service to the school.

Greenbaum's accomplishments as dean are numerous. He enlarged and strengthened the faculty, oversaw the building of the Charles F. Knight Executive Education Center and helped initiate Total Quality Schools, a joint program with the George Warren Brown School of Social Work. He also led successful efforts to establish the E.M.B.A. partnership with Fudan University in Shanghai.

Meanwhile, **Elaine Greenbaum**, an economist, was finding her own ways of enriching the school. Her passion for education made her the perfect partner in the Total Quality Schools effort.

Her relationship with Olin School students, faculty, staff and alumni fostered a culture of caring in the school that became central to its identity.

Outside of the Olin School, she served as chair of the Down Syndrome Association of Greater St. Louis and helped launch the Down Syndrome Center at Children's Hospital.

After earning an M.B.A. from the Olin School in 1973, **Gillula** has only had two employers. He started with Mark Twain Bank as

a loan officer and within a few years was bank president.

In 1979, Gillula moved to the holding company, Mark Twain Bancshares, where he assumed the role of senior vice president and chief financial officer.

While still a loan officer, Gillula had contact with a new company called Computer Sales International.

In 1984, he joined his former client as the company's senior vice president and quickly progressed up the ranks. He eventually became president, the position he currently holds, with the renamed CSI Leasing Inc.

**Gorguze** is a 1986 M.B.A. graduate of the Olin School. As president of Cameron Holdings Corp., she took a family-owned vinyl dip molding company and built a private equity conglomerate that manages an array of businesses worldwide.

She and her father, Vincent Gorguze, former chief operating officer of Emerson Electric, established the business in 1993. Ten years later, the company's combined revenue is approximately \$250 million.

Among Cameron's holdings have been manufacturers of playground equipment, cutting tools, copper and fiber-optic cable for the audio/video and data industries, graphite golf club shafts as well as a packer of food, pharmaceutical and industrial products.

**Levey** earned an M.B.A. at the business school in 1967. He was a founder and managing partner of

Paragon Group Inc., a real-estate development and management firm established in 1973.

The company expanded and went public in 1994 when it managed more than 300 office and industrial buildings, shopping centers and multifamily residential communities in 40 metropolitan areas covering 18 states.

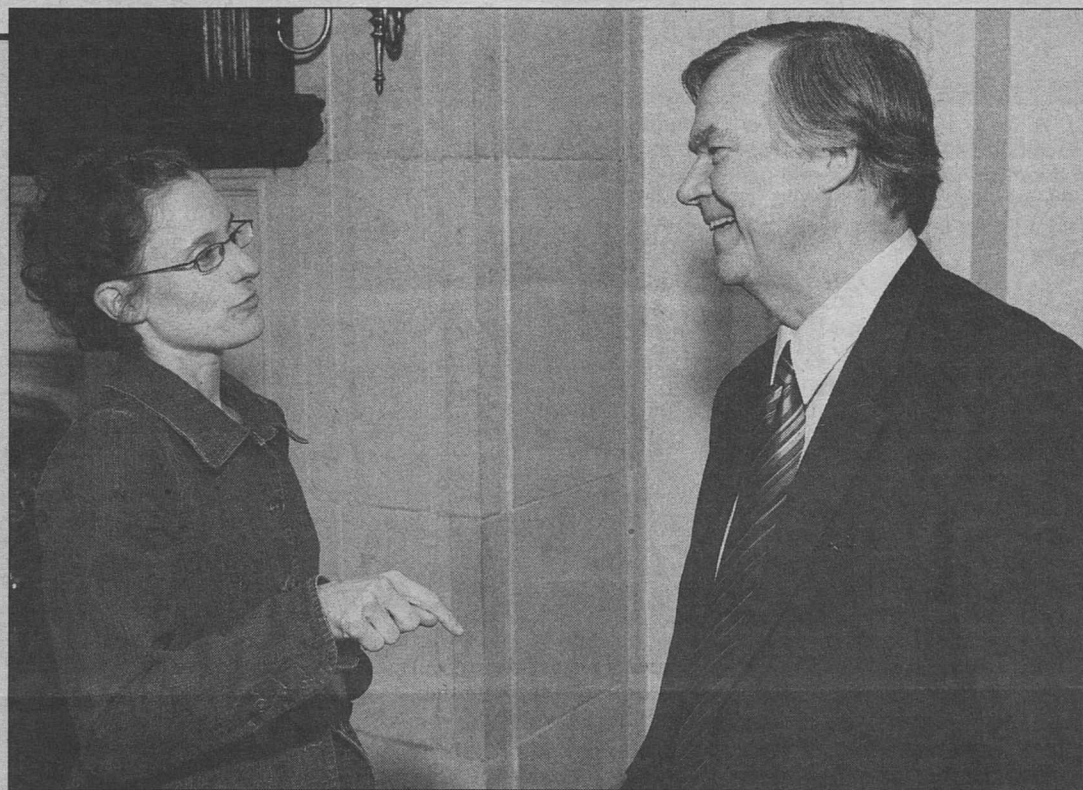
In 1997, Paragon Group merged with Camden Property Trust, which today is a \$6 billion company on the New York Stock Exchange.

Levey has been a director of the National Multi Housing Council and served the Urban Land Institute in various leadership capacities. He also is actively involved in the Center of Research, Technology and Entrepreneurial Expertise.

**Ling**, a 2004 M.B.A. graduate, fell into his business when a real-estate client of his couldn't pay a debt and offered to transfer ownership of his small commercial lighting factory to Ling.

The business struggled for a long time before Ling decided to change the company's strategies. He moved production to Shanghai from Taiwan, expanded his product into neon signage, cut costs and took the business international.

Now Enhance Holding Corp. is the largest neon-lighting manufacturer in the world, with offices worldwide and clients such as Anheuser-Busch, Madden Inc. (Miller), J Group (Heineken), Gambirius (Corona) and Spencer Gifts Inc., to name a few.



**Excellence in teaching** Robert E. Thach, Ph.D., dean of the Graduate School of Arts & Sciences, congratulates Katie McNeill, a doctoral student in comparative literature in Arts & Sciences, on her receipt of a Dean's Award for Teaching Excellence. Each spring, the dean of the Graduate School of Arts & Sciences recognizes outstanding teaching assistants with a \$1,550 cash prize. In addition to McNeill, other winners were: Catrina Adams (anthropology); Santiago Amaya (philosophy, neuroscience and psychology); Emily Austin (philosophy); Adam Brustkern (chemistry); Ben Cawthra (history); Yonhow (Larry) Lin (mathematics); Nancy Richardson (Germanic languages and literatures); Gabriela Romero-Ghiretti (Romance languages and literatures); Shiho Takai (East Asian Studies); Kasey Wagoner (physics); Yanning Wang (Asian & Near Eastern languages); and sharing a prize were Jessica Hathaway and Rob Patterson (English/The Writing Program).

## Proposals

WUSTL is one of eight Kauffman Campuses — from Page 2

publication;

- Overall research project plan, including references to methodology and approach; and
- Relationship to the stated topics of interest.

Other factors to be considered include engaging graduate students in the research, degree of collaboration with scholars in other disciplines, previous scholarly record and interest in the topic of entrepreneurship.

WUSTL was one of eight U.S. universities selected by the Ewing Marion Kauffman Foundation to share \$25 million in grants through the Kauffman Campuses initiative, designed to make entrepreneurship education available across campuses and transform the way entrepreneurship is viewed, taught and experienced. Schools must match the Kauffman Campuses grant at least 2-to-1.

For a list of previous competitive faculty grant recipients, go online to [law.wustl.edu/CRIE/grants](http://law.wustl.edu/CRIE/grants).

## Seniors Bibee, Cain share biology's annual Spector Prize for research

Seniors Kristin Bibee and Carolyn Cain have won the Department of Biology in Arts & Sciences' Spector Prize, presented annually to recognize academic excellence and outstanding undergraduate achievement in research.

Bibee worked with Kelle Moley, M.D., vice chair for basic research in the Department of Obstetrics and Gynecology and associate professor in that School of Medicine department. Bibee's paper was titled "This GLUT Was Made for More Than Walkin': GLUT9 Membrane Targeting and Diabetes-Related Alteration in Placental Expression."

Cain worked with Alison Goate, D.Phil., the Samuel and Mae S. Ludwig Professor of Genetics in Psychiatry and professor of genetics and of neurology in the medical school. Cain's paper was titled "Association of SNPs in Intronic Regions of CHRM2 With Alcohol Dependence and Major Depressive Syndrome."

Bibee and Cain presented research talks at a biology department seminar April 24.

The Spector Prize, first awarded in 1974, is presented in memory of Marion Smith Spector, a 1938 WUSTL graduate who studied zoology under prominent WUSTL developmental biologist

Viktor Hamburger, Ph.D.

Being nominated for the prize by a mentor signals that a student has done research judged to be beyond typical for undergraduates.

### Wang wins Stalker Prize

James Y. Wang has won the biology department's Stalker Prize, given annually to a senior whose undergraduate career is marked by outstanding scientific scholarship as well as contributions to the University in areas of artistic expression and/or community service.

Wang has a superb academic record and has co-authored two peer-reviewed publications stemming from his neurobiology research in the laboratory of Jeffrey D. Milbrandt, M.D., Ph.D., professor of medicine, of pathology and immunology and of neurology.

Wang has served as concertmaster for the University's symphony and chamber orchestras and is the violinist in the Florence Piano Trio. He also was a co-founder of the undergraduate interdisciplinary journal APEX.

The prize is named in the honor of Harrison Stalker, a leading WUSTL evolutionary biologist, geneticist and teacher, who also was a fine-arts enthusiast.

## Graduate Student Senate gives out Faculty Mentor Awards

BY ANDY CLENDENNEN

The Graduate Student Senate presented its Seventh Annual Outstanding Faculty Mentor Awards April 26 in the Women's Building.

The awards were established in 1999-2000 to honor faculty members whose dedication to graduate students and commitment to excellence in graduate training have made a significant contribution to the quality of life and professional development of graduate students in Arts & Sciences.

This year's recipients are:

- James M. Cheverud, Ph.D., professor of anatomy and neurobiology in the School of Medicine, and of anthropology and of biology, both in Arts & Sciences;
- Lutz Koepnick, Ph.D., professor of Germanic languages and literatures and of Film and Media Studies, both in Arts & Sciences;
- Kathleen McDermott, Ph.D., assistant professor of psychology in Arts & Sciences and of radiology in the School of Medicine;

- Enola K. Proctor, Ph.D., the Frank J. Bruno Professor of Social Work Research and dean for research in the George Warren Brown School of Social Work;

- Wolfram Schmidgen, Ph.D., assistant professor of English in Arts & Sciences; and

- Michael Strube, Ph.D., professor of psychology in Arts & Sciences and of physical therapy in the School of Medicine.

Additionally, the Graduate Student Senate handed out several Special Recognition for Mentoring Awards. For a full list of these recipients, go online to [arts.wustl.edu/~gss/OFMA%20awards%20060430.htm](http://arts.wustl.edu/~gss/OFMA%20awards%20060430.htm). The Graduate Student Senate Committee, chaired by Blaine Maley, doctoral student in anthropology, and Heather Nehre, doctoral student in music in Arts & Sciences, selected faculty recipients based on nominations by graduate students and alumni in the Graduate School of Arts & Sciences.

## Campus Watch

The following incidents were reported to University Police April 26-May 3. Readers with information that could assist in investigating these incidents are urged to call 935-5555. This information is provided as a public service to promote safety awareness and is available on the University Police Web site at [police.wustl.edu](http://police.wustl.edu).

### April 28

12:24 p.m. — A desktop computer was taken from a room in the North Brookings Tunnel. The theft occurred between 5:20 p.m. April 27 and 9 a.m. April 28. Total loss is estimated at \$1,000.

### May 1

9:33 a.m. — An individual in the Department of Biology in Arts & Sciences reported that an unknown person threw several objects down the west stairwell of McDonnell Hall, damaging an incubator. The incident occurred

between 6 p.m. April 28 and noon April 30.

### May 2

3:40 p.m. — An individual reported his car was parked in the Snow Way Garage in the northwest corner, first floor, and an unknown person stole his front license plate. The theft occurred between noon April 16 and 5 p.m. April 19.

In addition, University Police responded to two auto accidents and one report each of possession of a controlled substance, larceny and property damage.



## Washington People

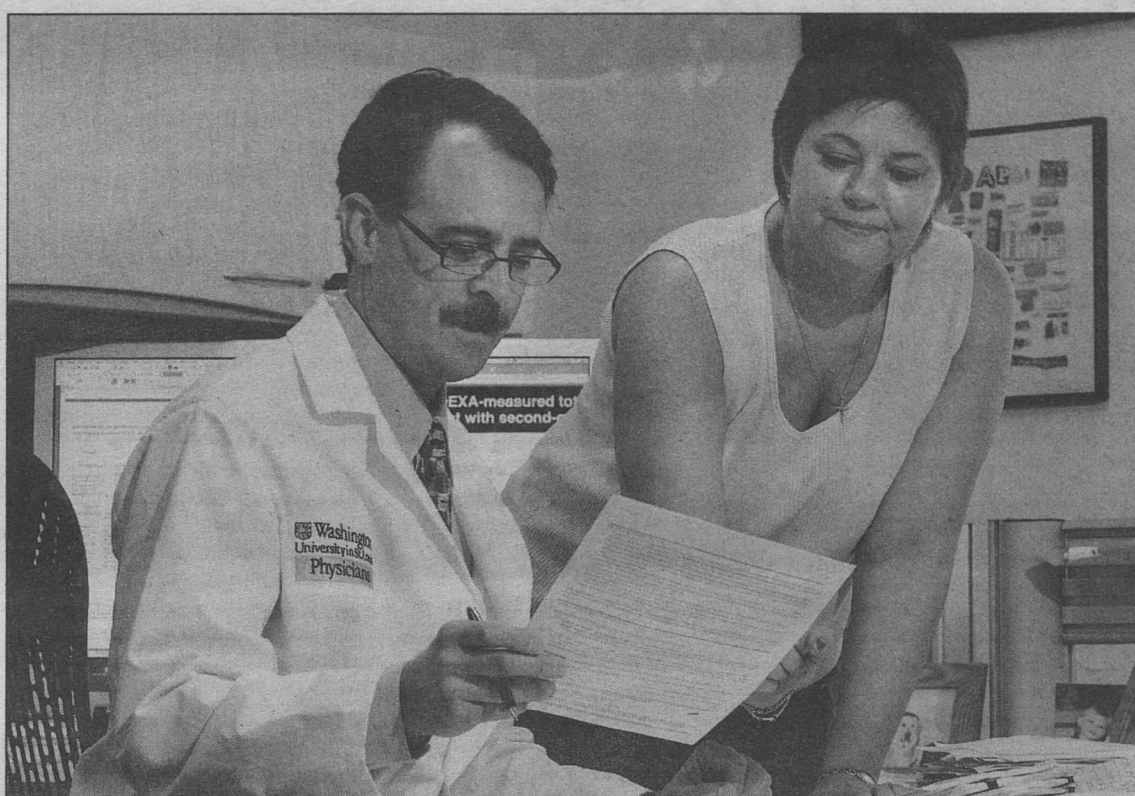
**W**hen he first came to St. Louis, John W. Newcomer, M.D., hadn't yet picked a career path.

His family moved several times when Newcomer was a child. In fact, because his father was in the Navy, he was born in the Philippines at the Subic Bay Naval Base. Later his dad, John L. Newcomer, was in the FBI, and when John W. was in kindergarten, the family lived in St. Louis for about 18 months.

"I remember seeing the Arch halfway constructed," he recalls. "I have a vivid image of that in my brain."

By the time Newcomer — now a professor of psychiatry, psychology and medicine — returned to St. Louis in 1990, the Gateway Arch was long complete. After those early years, the family settled in Detroit, his father having left the FBI to become a Department of Justice prosecutor. While his dad was investigating organized crime, his mother, Barbara, was teaching gifted children in the public school system there.

He left Detroit for Rhode Island to attend Brown University,



John W. Newcomer, M.D., reviews a grant application with Brenda Rosen, administrative coordinator, in the Department of Psychiatry. "John's just a great guy to work with," says James A. Moran, J.D., assistant dean for clinical trials and executive director of the Center for Clinical Studies. "We've gotten to work very closely together, and we have some exciting plans in the works. I think clinical research here is really going to be changing in the next few years as we find new ways to match investigators with funding."

By JIM DRYDEN

## Discovering drugs that work

John W. Newcomer, M.D., studies metabolic effects of antipsychotic drugs in people with schizophrenia

and it was during college that he decided what he wanted to do with his life. He was intrigued by the tremendous amount of uncharted territory in neuroscience.

"I had taken a summer job at a psychiatric facility, and I saw a person who came in acutely psychotic," he remembers. "After about two or three days of antipsychotic therapy, however, she was much better. She wasn't completely healed by any means, but she was able to engage in rational and meaningful conversations with her family again. I was struck by the dramatic changes that must have been occurring in her brain."

After completing his undergraduate work at Brown, Newcomer returned to Detroit for medical school at Wayne State University. The psychiatry department's Lafayette Clinic, which at the time housed a collection of National Institutes of Health-funded researchers, was where Newcomer developed a research interest in neuroendocrinology in his spare time.

During his fourth year of medical school, he took electives at the University of California, San Francisco and at Yale University. Then it was on to Stanford University for residency and a research fellowship.

"I lived in the city and commuted down the peninsula," he recalls. "It was really nice. Plus, Stanford was a center for neuroscience research and one of the most biological and research-based psychiatric training programs of the time. Being there was highly stimulating and a lot of fun."

He finally arrived in St. Louis in 1990 and started a research unit at the old Malcolm Bliss Hospital. Continuing studies of glucocorticoid effects on memory that he began at Stanford, he also became interested in the effects of insulin and glucose on memory, an area of research that has continued to inform his work.

He was looking at the influences of glucose and insulin on memory function in schizophrenia when he encountered disease- and treatment-related disturbances in glucose metabolism.

"It turns out that patients with major mental disorders have elevated metabolic risk," he explains. "Psychiatric patients have increased morbidity and mortality in comparison to the general population from causes like cardiovascular disease and complications associated with diabetes."

Patients with certain psychiatric diseases are more apt to be obese, to have high cholesterol, hypertension or to smoke. Those factors increase their risk, but it turns out that some psychiatric drugs also are associated with weight gain and insulin resistance. Some of those same drugs are also linked to an increased risk of a problem with blood lipid levels called dyslipidemia, and diabetes.

So Newcomer and his colleagues have spent part of the last several years studying the metabolic effects of antipsychotic drugs in people with schizophrenia, funded by the National Institute of Mental Health (NIMH). They're also preparing to launch a similar NIMH-funded study in children treated with antipsychotic medicines.

That research informs Newcomer in another of his professional functions. Since 1997, he's been chairman of the Drug Utilization Review Board for Mis-

souri Medicaid. That board is charged with the tricky task of trying to make the best prescription drugs available to Missouri's Medicaid patients at the best prices the state can negotiate.

A substantial portion of Medicaid patients has psychiatric disabilities, and it turns out that psychiatric patients receive many of the drugs that Medicaid covers. Newcomer points out that the top three drugs, in terms of Medicaid dollars spent per month, are antipsychotic medications.

"It's interesting because we know that some of these drugs are linked to risk for high cholesterol and diabetes," he says. "Those problems are expensive to treat, too. Our board is very interested in strategies to reduce medical risk and cost in people with psychiatric symptoms, while also preserving access to all the psychiatric medications needed for treatment of the severe mental disorders found in our Medicaid population."

"These complex problems lead to a lot of concerns and some complex dynamics involving the legislature, the pharmaceutical companies, the governor's office, physicians and patient advocacy groups."

These days, Newcomer also finds himself on administrative committees for professional scientific societies, working on policies to try to ensure better care for patients. For example, he's chairing an American Psychiatric Association work group on antipsychotic drugs and their metabolic risks. That group will complete a "white paper" on the issue later this year. He also was part of an American Diabetes Association consensus conference on that issue.

He says while genes and environmental factors can interact to create psychiatric and medical illness, systems-level problems conspire to complicate medical treatment for psychiatric patients. Although he calls antipsychotic drugs one of the real success stories in psychiatry, some drugs can be less selective than one would like. They interact with dopamine receptors to control psychotic symptoms, but may also interact with other receptors in the brain to make patients sleepy or to stimulate appetite and weight gain.

Working with investigators to find drugs that treat symptoms with fewer side effects also is part of his role in Newcomer's newest University position: Medical Director of the Center for Clinical Studies. The center supports two

types of clinical research: industry-initiated and investigator-initiated studies. Newcomer hopes that in the future, the center will expand its focus on investigator-initiated research.

"That's where an investigator has an idea and, working with the Center for Clinical Studies, can find an interested and willing industry supporter," Newcomer says. "We think investigator-initiated research offers the greatest opportunity for growth in the coming years, especially if the NIH budget continues to be tight. There's just an enormous amount of intellectual wealth at Washington University, and industry wants to come and take advantage of those resources."

One person helping investigators navigate some of the barriers that exist between industry and academic medicine is James A. Moran, J.D., assistant dean for clinical trials and executive director of the Center for Clinical Studies. Where Newcomer focuses on the clinical side, Moran concentrates on administration.

"John's just a great guy to work with," Moran says. "We've gotten to work very closely together, and we have some exciting plans in the works. I think clinical research here is really going to be changing in the next few years as we find new ways to match investigators with funding."

With all that he has going on professionally, Newcomer doesn't have a lot of time left, so he spends all his spare time with family. Newcomer's wife, Barbara Freedman, is a psychotherapist in private practice in Clayton, and his daughter, Leah, and son, Adam, attend John Burroughs and Whitfield School, respectively.

The entire family enjoys cooking and eating great food together, traveling rigorously and discussing political and social issues, Newcomer says. The family also has two yellow Labrador retrievers, Max and Ruby, so when the weather is nice they like to hike with the dogs in Queeny Park.

Newcomer's father ran marathons, but the son now has a lifelong pass from such grueling competition. He earned it about three years ago when he was playing in a parents vs. kids soccer game.

"I ruptured my Achilles tendon," he recalls. "That's an experience you never forget. I had a great surgical repair, but let's just say my enthusiasm for playing against the children in soccer has diminished."

### John W. Newcomer

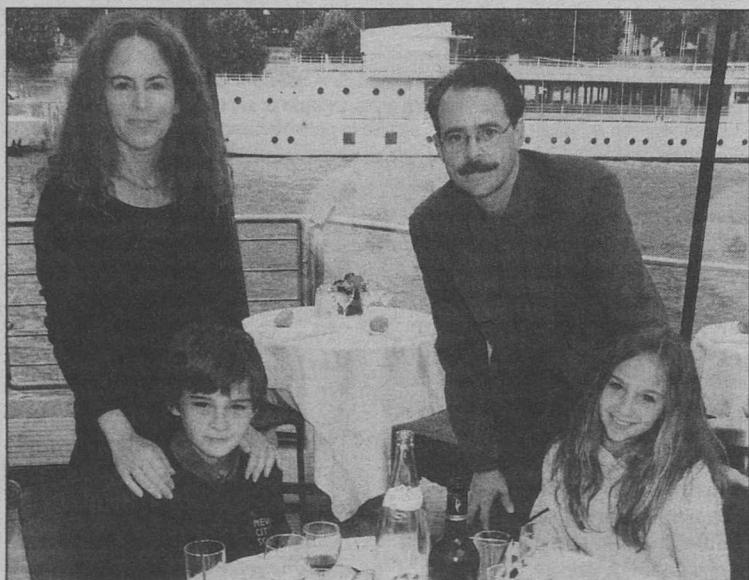
**Born:** Jan. 1, 1959, Subic Bay Naval Base, Philippines

**Education:** Philosophy of science, A.B. magna cum laude, 1981, Brown University; M.D. 1985, Wayne State University School of Medicine

**University positions:** Professor of psychiatry and medicine in the School of Medicine and of psychology in Arts & Sciences; medical director, Center for Clinical Research

**Family:** Wife, Barbara Freedman; daughter, Leah (14); son, Adam (12); mother, Barbara Newcomer; father, John L. Newcomer; brother, Tom Newcomer

**Key laboratory contributors:** Dan Haupt, M.D., recently received a NARSAD (National Alliance for Research on Schizophrenia and Depression) Young Investigator Award to study the metabolic effects of combining several psychiatric drugs. Peter Fahnestock, M.D., recently received a NARSAD grant to learn whether psychiatric drugs cause weight gain by changing how the body burns calories or by altering the body's caloric intake.



John Newcomer, M.D., with his family in Paris: (from left) wife, Barbara Freedman; son, Adam; and daughter, Leah.